



## **FACT SHEET**

### **FOR REISSUANCE OF A HAZARDOUS WASTE OPERATING PERMIT (Permit Number MTHWP-17-01)**

#### **EXXONMOBIL REFINING AND SUPPLY COMPANY BILLINGS REFINERY BILLINGS, MONTANA EPA ID NO. MTD 010380574**

The Montana Department of Environmental Quality (DEQ) is proposing to reissue a hazardous waste operating permit to ExxonMobil Refining and Supply Company (ExxonMobil) at its refinery located in Billings, Montana. The draft permit contains requirements for operation of a waste staging area, land treatment unit and associated vehicle decontamination pad; post-closure care of two land treatment units; and continued implementation of facility-wide corrective action.

The State of Montana issued a hazardous waste permit to ExxonMobil for operation, closure, and post-closure maintenance of their regulated hazardous waste management units in 1988. The permit was reissued in 1999. This draft hazardous waste permit is a reissuance of the ExxonMobil hazardous waste permit issued by DEQ in 1999. MTHWP-17-01 is issued under Title 75, Chapter 10, Part 4 of the Montana Hazardous Waste Act (MHWA), the federal Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 and as amended by the Hazardous and Solid Waste amendments of 1984 (42 US Code §6901 et seq.).

This fact sheet was prepared in accordance with the requirements of 40 Code of Federal Regulations (CFR) 124.8, as incorporated by reference in the Administrative Rules of Montana (ARM) 17.53.1201.

#### **I. Facility Description**

The ExxonMobil Billings Refinery (Refinery) located northeast of Billings, Montana has been in operation since July 1949. The Refinery has the capacity to process approximately 60,000 barrels per day of domestic and Canadian crude oil into refined petroleum hydrocarbon products, by-products, and intermediate products.

Refinery operations are conducted on 367 acres of 770 acres owned by ExxonMobil; leaving approximately 403 acres of undeveloped land surrounding the Refinery operations. The processing portion of the Refinery is bound to the south by railroad tracks and to the north by the Yellowstone River. To the east, the processing and operations portion of the Refinery is bound by the former coke storage pile area, the Refinery's wastewater treatment ponds, two inactive land treatment units, a former gravel quarry, and undeveloped land. To the west of the Refinery are undeveloped land and an island of the Yellowstone River. Beyond the property boundary are several businesses and residences. The site is currently zoned for heavy industrial use.

## **II. Hazardous Waste Permit Background**

The Resource Conservation and Recovery Act (RCRA) is the federal law under which regulations concerning the management, treatment, storage, and disposal of hazardous waste are implemented. The Montana Hazardous Waste Act (MHWa) is the State equivalent of RCRA. Facilities with certain operating or closed hazardous waste management units must obtain a hazardous waste permit, as required by MHWa.

Hazardous waste permits are issued for a period of 10 years. At the end of this period, the Permittee may apply for renewal of the permit. The state of Montana issued the current permit (MTHWP-99-02) to the Refinery on June 28, 1999. ExxonMobil submitted a draft application for permit renewal in November 2008, and the final application was submitted in March 2011. During the permit application, review, and permit writing process, the current permit, MTHWP-99-02, remains in effect. At finalization of the permit reissuance, this draft permit will replace MTHWP-99-02.

## **III. Corrective Action Permit Background**

In 1984, Congress amended RCRA. The amended law, titled the Hazardous and Solid Waste Amendments of 1984 (HSWA), includes a requirement that owners and operators of hazardous waste facilities remediate releases of hazardous wastes or hazardous constituents from solid waste management units (SWMUs) and areas of concern (AOCs). A SWMU is any unit that was used at any time to manage waste, regardless of whether the unit was intended for that purpose. An AOC is any area at a facility having a probable release of a hazardous waste or hazardous constituent that may or may not be from a SWMU. The HSWA corrective action requirements are established in Section 3004(u) of RCRA and are codified in federal regulations at 40 CFR Section 264.101, as incorporated by reference in ARM 17.53.801.

Through HSWA, Congress required that permits issued to hazardous waste treatment, storage, and disposal facilities contain corrective action requirements for SWMUs/AOCs. ExxonMobil managed wastes in a number of SWMUs and AOCs at the Refinery. During the 1999 hazardous waste permit reissuance for the Refinery, DEQ and EPA jointly issued the modules of the permit pertaining to facility-wide corrective action. In 2000, DEQ received authorization from EPA to be the sole authority for oversight of the ExxonMobil permit.

## **IV. Regulated Units at the Refinery**

The Refinery's four hazardous waste management units currently regulated by DEQ are listed and generally described below:

Hazardous Waste Management Unit	General Description	Status
South Land Treatment Unit (SLTU)	A 16 acre landfarm used to degrade hazardous and non-hazardous wastes; also contains a vehicle decontamination pad to wash landfarm vehicles. After the current permit reissuance, only non-hazardous waste will be placed on the landfarm.	Operating

Waste Staging Area (WSA)	A bermed, concrete pad used to store containers of hazardous waste for greater than 90 days, before shipment to an off-site commercial treatment, storage, and disposal facility.	Operating
New East Land Treatment Unit (NELTU)	A landfarm formerly used to degrade hazardous and non-hazardous wastes.	Certified Closed and currently in Post-Closure Care
Old East Land Treatment Unit (OELTU)	A landfarm formerly used to degrade hazardous and non-hazardous wastes.	Certified Closed and currently in Post-Closure Care

Specific information on each of the hazardous waste management units is presented below.

***Land Treatment Units (SLTU, NELTU, OELTU):*** Land treatment, or ‘landfarming’, is a method of degrading petroleum-affected wastes by applying the waste to soil, which is then tilled and fertilized. Microorganisms in the soil degrade the waste over time. Land treatment has been successfully employed to degrade petroleum wastes for many years at the Refinery.

State and Federal regulations restrict the land disposal of many untreated hazardous wastes, including certain listed hazardous refinery wastes. Therefore, some hazardous refinery wastes cannot be placed on a land treatment unit unless a petition is made to EPA and a ‘No Migration Variance’ (NMV) is granted. To receive a NMV, the petitioner must prove that hazardous constituents will not migrate from the land treatment unit for as long as the wastes remain hazardous.

***South Land Treatment Unit (SLTU):***

As shown in Table 1, the SLTU is an operating land treatment unit. In 1993, ExxonMobil received a NMV from the EPA to apply listed hazardous wastes generated at the Refinery to the SLTU. ExxonMobil did not reapply for a NMV with this permit reissuance. Therefore, the NMV will be terminated when the new permit goes into effect. ExxonMobil may treat non-hazardous waste on the SLTU, following requirements under the new permit.

A vehicle decontamination facility (VDF) is located at the south end of the SLTU. The VDF consists of a sloped concrete pad which drains to a double-walled sump. When a vehicle leaves the SLTU, it must stop on the concrete pad and the undercarriage of the vehicle must be hosed down with water to remove any waste that may have adhered to the vehicle. Wash water and sludge that settle to the bottom of the sump are periodically removed and placed back on the SLTU.

***New East Land Treatment Unit (NELTU) and Old East Land Treatment Unit (OELTU):***

In 1989, closure of the ELTUs began with placement of the last waste loads. Land treatment continued until concentrations of hazardous constituents in the soil met permit standards. The units were certified closed with establishment of a vegetative cap in 2011. Post-closure care of the units began in 2011 at certification of closure.

### ***Waste Staging Area (WSA):***

Hazardous wastes generated at the Refinery are placed in containers and stored on pallets in the WSA prior to shipment to an off-site commercial hazardous waste treatment, storage, and disposal facility. The permit allows storage of the hazardous wastes in the WSA for longer than 90 days prior to off-site shipment. The WSA consists of a concrete pad with a berm and a sump to capture any spilled wastes and precipitation.

## **V. CURRENT STATUS OF FACILITY-WIDE CORRECTIVE ACTION**

To date, the Permittee has completed a RCRA Facility Investigation, a Corrective Measures Study, and Corrective Measures Implementation Work Plan for the currently identified SWMUs and AOCs. Corrective Measures Selection was completed in 2009. Corrective measures include groundwater source control via vacuum enhanced recovery, capture zone wells, and two interceptor trenches; groundwater quality monitoring; institutional controls; phytoremediation plots; and air sparging.

## **VI. CONTENTS OF THE DRAFT PERMIT**

All conditions of the draft permit are based on requirements in Title 17, Chapter 53 of ARM for the management of hazardous waste.

The draft permit contains seven sections; each focusing on specific topics:

Module I	Standard Permit Conditions
Module II	South Land Treatment Unit and Vehicle Decontamination Facility Operations
Module III	Closure of the South Land Treatment Unit and Vehicle Decontamination Facility
Module IV	Post-Closure Care for the South Land Treatment Unit, New East Land Treatment Unit, and Old East Land Treatment Unit
Module V	Waste Staging Area
Module VI	Groundwater Monitoring
Module VII	Facility-Wide Corrective Action

### Module I: Standard Permit Conditions

Module I contains general permit requirements such as reporting, recordkeeping, financial assurance, and institutional controls.

### Module II: SLTU and VDF Operations

The draft permit restricts use of the SLTU to non-hazardous waste and requires ExxonMobil to properly manage and treat wastes placed on the SLTU. Through sampling and analysis, ExxonMobil must ensure that wastes placed on the SLTU do not exceed permit concentration limits for metals and pH. In addition, wastes cannot cause the top nine inches of soil in the unit to exceed permit concentration limits for oil and grease, metals, and pH. At finalization of this permit issuance, only non-hazardous wastes may be placed on the SLTU.

To guard against contamination of deeper soils or groundwater, the draft permit requires routine sampling and analysis of soils and groundwater in and around the unit. If contamination is found in these deeper soils or groundwater, the draft permit requires ExxonMobil to correct the problem and revise operational activities to prevent future problems.

To enhance microbial degradation of the applied wastes, soil nutrients (i.e. nitrogen, phosphorous, and potassium) and pH must be analyzed and adjusted, and the soil must be tilled. To prevent run-on of precipitation and run-off of precipitation and waste, ExxonMobil is required to maintain dikes around the unit. Mandatory inspections ensure the unit remains secure and undamaged.

ExxonMobil is required to annually submit to DEQ a report showing compliance with the soil and groundwater permit concentration limits and a summary of VDF operations.

#### Module III: Closure of the SLTU and VDF

The draft permit provides requirements for the timing and notification of commencing closure of the SLTU and VDF. Closure requirements include reporting and recordkeeping, security and inspections, and maintenance procedures during closure. The draft permit also provides performance standards required to achieve closure and requirements for a protective cover on the SLTU once the performance standards have been achieved.

#### Module IV: Post-Closure Care for the SLTU, NELTU, and OELTU

The purpose of the post-closure care period for the SLTU, NELTU, and OELTU is to require continued monitoring and maintenance of the unit to ensure that hazardous constituents are not escaping and polluting the surrounding environment. Waste is not allowed to be placed on the units during the post-closure care period. Post-closure care of the SLTU, NELTU, and OELTU include requirements for inspections and maintenance, adherence to a post-closure plan, sampling and analytical requirements, and reporting requirements.

#### Module V: Waste Staging Area

The draft permit requires ExxonMobil to maintain and operate the WSA. ExxonMobil may store any on-site generated hazardous waste at the WSA, as long as the waste is placed in a proper container with a label, the container is kept closed during storage, and the container is stored in the proper location within the WSA.

Mandatory inspections ensure the WSA is secure and undamaged and the containers are properly labeled and in good condition.

The draft permit also contains requirements for decontamination and closure of the WSA. Because all hazardous wastes and waste residues will be removed during closure, post-closure care of the WSA is not anticipated.

#### Module VI: Groundwater Monitoring

Module VI provides groundwater monitoring requirements for the SLTU, NELTU, and OELTU. Groundwater monitoring is conducted to monitor potential leaching of contaminants from each land treatment unit. Permit requirements include general sampling and analysis procedures, concentration limits, and analytical reporting requirements.

#### Module VII: Facility-Wide Corrective Action

The facility-wide corrective action module establishes requirements for the identified Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at the site, as described in Section III, above. The draft permit also provides requirements for any newly discovered SWMUs and AOCs or newly identified releases at existing SWMUs and AOCs. Requirements include procedures for facility investigations, interim measures, and corrective measures at the site, if necessary.

## VII. PUBLIC PARTICIPATION

The public comment period allows interested citizens, members of the regulated community, and other governmental agencies an opportunity to comment on the draft permit and the accompanying environmental assessment.

### Comment Period

The public is given an opportunity to review and comment on the draft permit before any final action is taken by DEQ.

**The public comment period extends from December 1, 2016 to January 20, 2017.**

### Written Comments

The public has until close of business on January 20, 2017, to submit written comments. Comments should include all reasonably available references, factual grounds for comments, and supporting material. Please submit written comments to the following address or email:

#### *U.S. Mail*

Ann Kron  
DEQ Waste and Underground Tank Management Bureau  
P.O. Box 200901  
Helena, MT 59620-0901

#### *Email*

[DEQhazwaste@mt.gov](mailto:DEQhazwaste@mt.gov)

Subject Line – ExxonMobil Billing Refinery Public Comment

### Public Hearing

During the public comment period, any interested person may submit to DEQ a request for a public hearing. A request for a public hearing must be in writing and must state the nature of the issues proposed to be raised in the hearing. If a hearing is held, DEQ will provide notice of the public hearing date at least thirty days prior to the hearing.

### Location of the Draft Permit, Fact Sheet, and Environmental Assessment

Copies of the draft permit, fact sheet, and draft environmental assessment are available for review at the DEQ Billings Office and the DEQ Helena Office. In addition, electronic copies are available for review online at <http://deq.mt.gov/pubcom.mcp>.

Location Information and Review Hours	
Montana Department of Environmental Quality Waste & Underground Tank Management Bureau 1520 E. 6 <sup>th</sup> Avenue Helena, Montana (406) 444-3490 Monday – Friday 8:00 – 5:00	Montana Department of Environmental Quality Billings Office Airport Business Park IP-9 1371 Rimtop Drive Billings, Montana (406) 247-4430 Monday – Friday 8:00 – 5:00

## **VIII. PROCEDURES FOR REACHING A FINAL DECISION ON PERMIT ISSUANCE**

DEQ will provide a Response to Comments after reviewing all submitted comments. The Response to Comments will explain any changes to the proposed permit and respond to any comments received during the comment period.

DEQ will then make a final decision to issue or deny the permit reissuance. After DEQ makes its final decision, notice will be given to ExxonMobil and each person who submitted written comments or requested a notice of the final decision. The final decision becomes effective 30 days after notice of the decision, unless a later date is specified or a public hearing is requested. If no comments are received, the final permit becomes effective immediately upon notice of DEQ's final decision.

For more information, please contact:

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Dated December 1, 2016